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ABSTRACT

This presentation of suggested layouts and specifications for home economics facilities has been prepared to be of service to school boards, architects, teachers, and administrators who are planning new schools or making renovations to existing structures. Room layouts are shown for a foods and nutrition room, or the foods and nutrition area of a one-room department; and for a textiles and clothing room and the textiles and clothing area of a one-room department. Suggestions are offered concerning room finishes, electrical and mechanical services, ventilation, and how to avoid planning faults. (Author/MLF)

ED 085906

Home Economics

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Prepared by
Ontario Department of Education
School Planning and Building Research Section

In conjunction with
The Department of Education's
Home Economics Committee

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Preface

Home economics is education for family life. Before designing functional facilities, planners must understand the scope of the program, the classroom activities and the instructional methods used. The facilities for teaching are influenced by the trends affecting all education, and also by special developments in the subject itself, particularly the changes which affect the home and the family. The home economics room should provide facilities for teaching an up-to-date program to meet today's needs. Facilities should be available for developing skill not only in food preparation and clothing construction, but also for the teaching of other important aspects of family life, such as management, consumer education, family development, housing, interior design, nutrition and textiles. Maximum skill in practical aspects of the course depends on adequate facilities. It is therefore important that areas for food preparation and clothing construction should accommodate all the pupils in a class, to a maximum of 20. *It should be pointed out that the room layouts in this book are suggestions.*

Boards building new schools or additions to schools may be able to apply some of them, but they are not to be considered as standard requirements.

General Requirements

In a large school, two separate rooms for home economics are usually necessary, one for foods and nutrition, the other a textiles and clothing room. In most elementary schools, one room is sufficient. This is referred to in this book as a one-room department, although it is sometimes known as an all-purpose or general home economics room. The foods and nutrition room can be used for the specialist dietary supervisors course, and the textiles and clothing room for a fashion arts course.

Colour and design are important in every school room, but especially more so in home economics areas. The surroundings can do much to foster an appreciation of good design. The selection of finishes, the colour of walls, floors, cupboards and work surfaces, the choice of well designed furniture and other materials, all must be carefully considered.

Rooms should be free of dividing walls and partitions, since any such arrangement hampers efficient work, and interferes with supervision and the easy movement of pupils and staff in the area.

Other facilities which will be required in all rooms include:

- tables and chairs, or desks for comfortable seating of the entire class during group work and instruction;
- chalkboard, not less than 60 to 70 sq. ft. If space is limited, a sliding or revolving type may be used;
- tackboard with a minimum area of 24 sq. ft. and not exceeding 48 sq. ft.;
- hinged display panels at the front of the room;
- storage space for pupil and teacher supplies;
- open shelves for reference books and periodicals;
- a built-in projection screen, black-out arrangements and cupboard for audio-visual equipment.

In the foods and nutrition room and the foods area of a one-room department, a special exhaust system with local controls should be installed to extract cooking odours and fumes.

Location

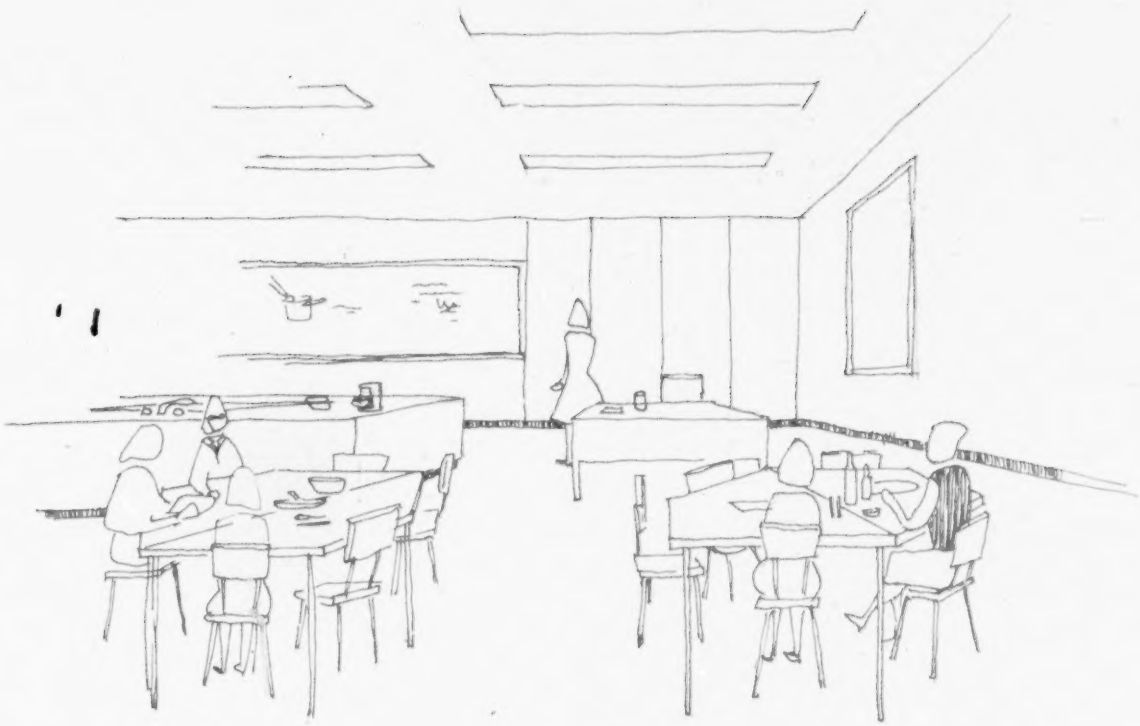
Because frequent deliveries are made to the home economics areas, a ground floor location is desirable, preferably near one of the entrances to the school.

Areas

Foods and nutrition room – 1,350 sq. ft. is ideal.

One-room department – As illustrated, this room is about 1,350 sq. ft. Some of the equipment would have to be omitted if the size is reduced.

Textiles and clothing room – This can be slightly smaller than the others, and, as shown, is 1,250 sq. ft.



Foods and Nutrition Room, or Foods and Nutrition Area of a One-Room Department 3

The foods and nutrition room is for instruction in family development, management, consumer education and nutrition. Equipment is also required for teaching skill in food preparation.

Kitchen Area

Sufficient kitchen units are needed so that all pupils can be usefully employed during a food preparation class. For a foods and nutrition room, six kitchens to accommodate a maximum of 20 pupils are recommended. For a one-room department, the requirement is four kitchens for a maximum of 12 pupils. Kitchen areas must be arranged to allow easy supervision. The island type shown in the drawings is preferable. Aisles should be 5 ft. wide. Each kitchen should be equipped with a double, stainless steel sink and a gas or electric range. Work space is needed on both sides of the sink. About 3 linear feet of counter is required for each pupil.

At least one portable or built-in dishwasher should be in the foods area. In a secondary school, space should also be allowed for two refrigerators and a freezer. For a one-room department in an elementary school, one refrigerator is sufficient.

Cupboards and drawers under the counter tops are recommended, as are overhead storage space and lights to illuminate the work area. A wall clock should be installed.

Dining Area

Space should be allowed for a dining table and at least four chairs adjoining each kitchen. A formal dining room is not necessary, but may be served by one kitchen if there is sufficient floor space. Trapezoid tables may be used as dining tables.

Instruction Area

The teaching area is best placed away from the kitchen units. The trapezoid tables may be used both for instruction and dining in this area. In a one-room department, work tables and chairs in the clothing construction space are normally used as desks for group work.

For teacher demonstration of food preparation, a permanent unit is recommended. It should be 35 in. high, and equipped with flush-mounted electrical elements or gas burners, a double electrical outlet at each end, a double, stainless steel sink, a small refrigerator, storage space for demonstration equipment, two 2-drawer filing cabinets and a chart storage cupboard. A desirable part of this unit is a built-in overhead demonstration mirror extending the full length of the unit, and designed so that demonstrations can be seen by all pupils. The mirror should also be placed where it will not obstruct the pupils' view of the chalkboard and projection screen. A bank of shelves, for storing trays with supplies for demonstrations, is needed either underneath or behind the demonstration unit. If space is limited, the demonstration unit can also serve as the teacher's desk.

In a one-room department, the demonstration unit should be slightly different in design from that in specialized rooms. Details are shown in the drawings.

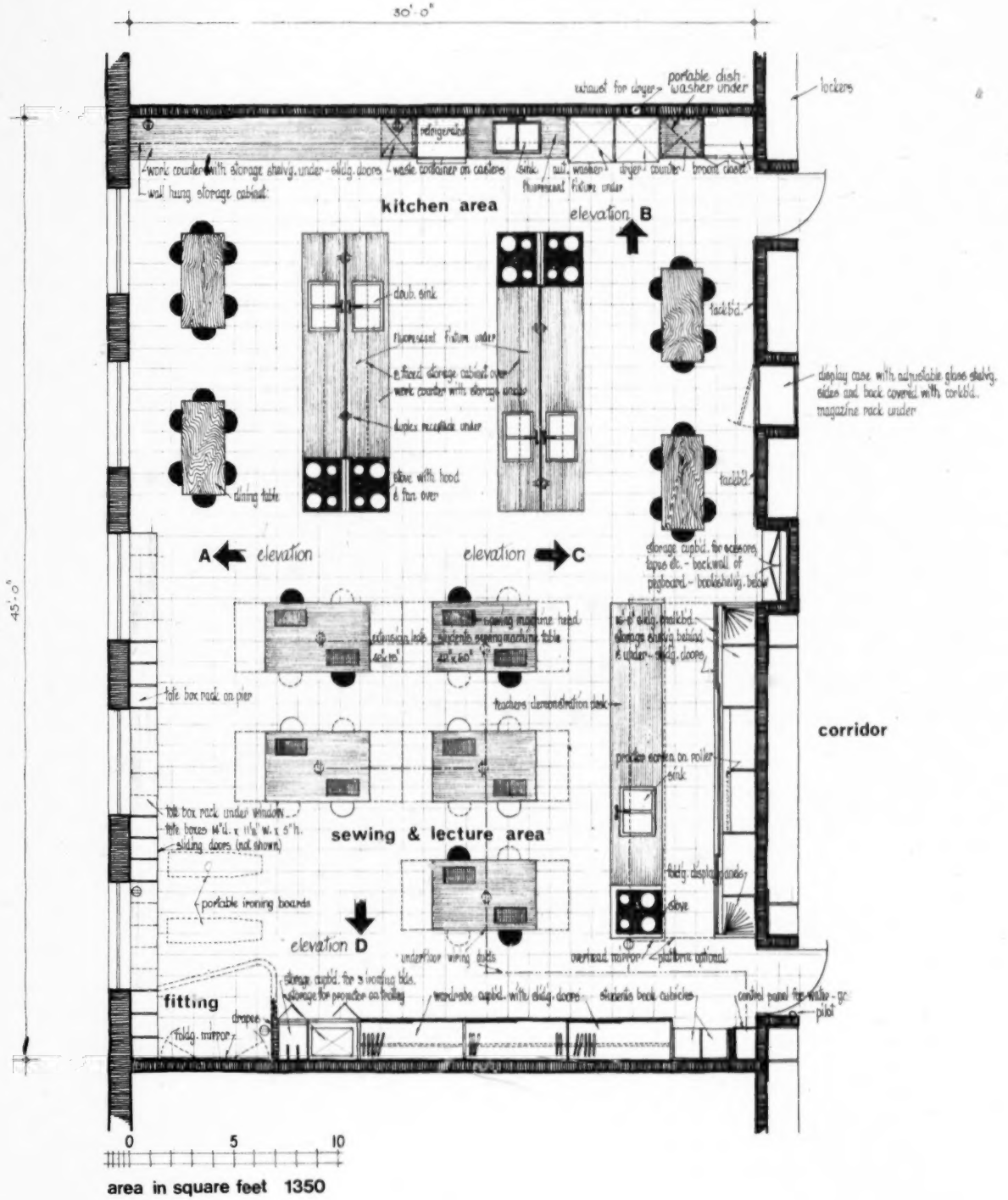
Storage

Cupboards – In addition to the cupboards in the kitchen areas, cupboards are also required for storing food, equipment for food preparation, audio-visual aids and cleaning aids. These storage units should be easily accessible from all kitchen areas. They should all have the same locks and keys. All cupboard shelves should be adjustable.

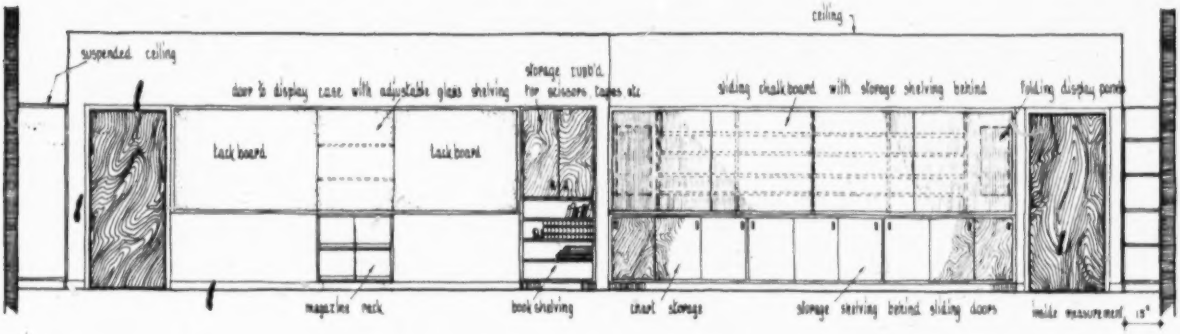
Shelves – A magazine rack and generous shelf space for books are necessary. Shelf heights should be adjustable.

Book cubicles – At least 20 cubicles should be provided to hold pupils' books and equipment. Each cubicle should be not less than 14 in. wide, 5 in. high and 12 in. deep. They are best placed near the entrance to the room.

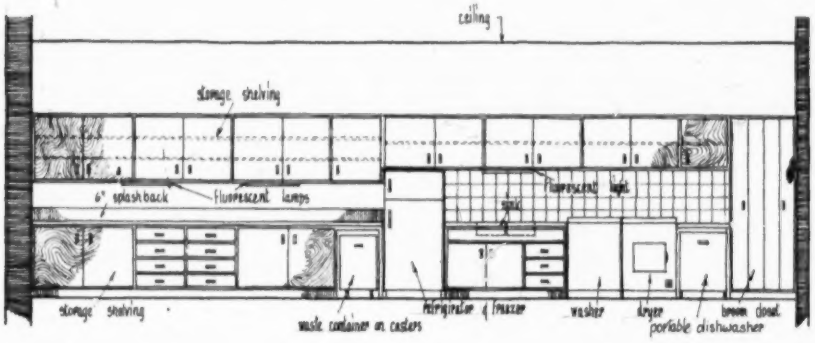
One-Room Department- floor plan



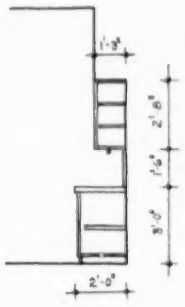
area in square feet 1350



elevation C



elevation B



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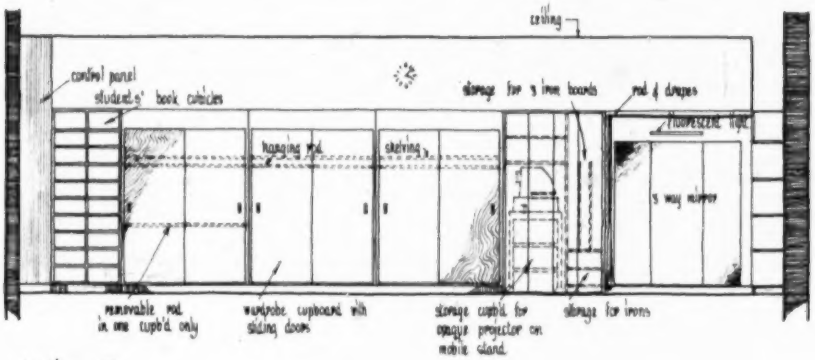
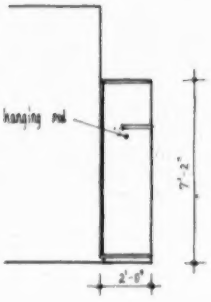
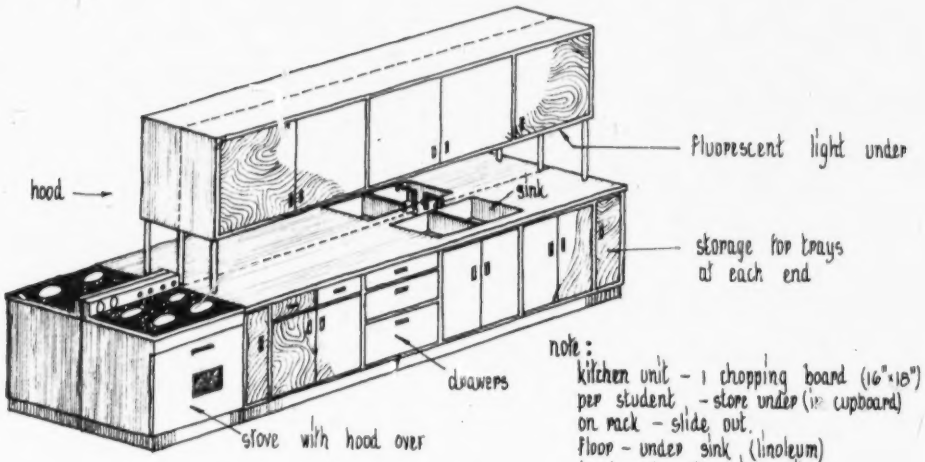


elevation D



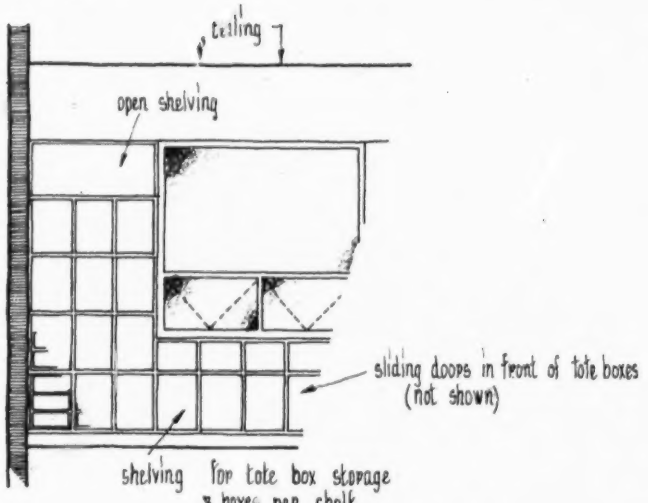
section

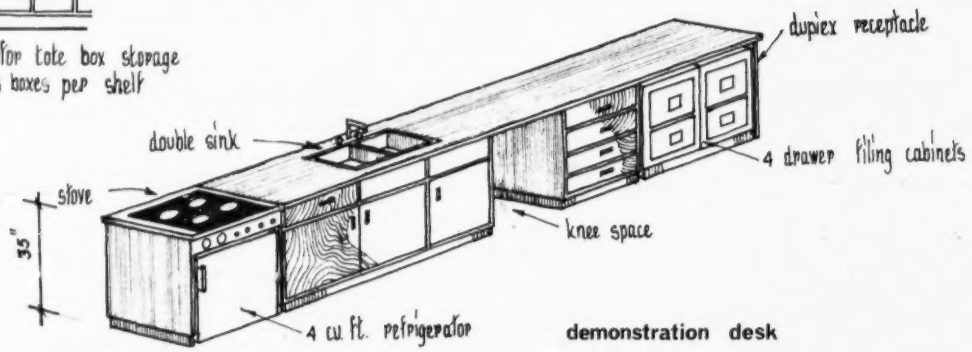
One-Room Department–elevation and detail


hood
sink
Fluorescent light under
storage for trays at each end
drawers
stove with hood over
note:
kitchen unit – 1 chopping board (16"×18") per student – store under (in cupboard) on rack – slide out.
floor – under sink (linoleum)
towel rack under sink unit.

kitchen unit

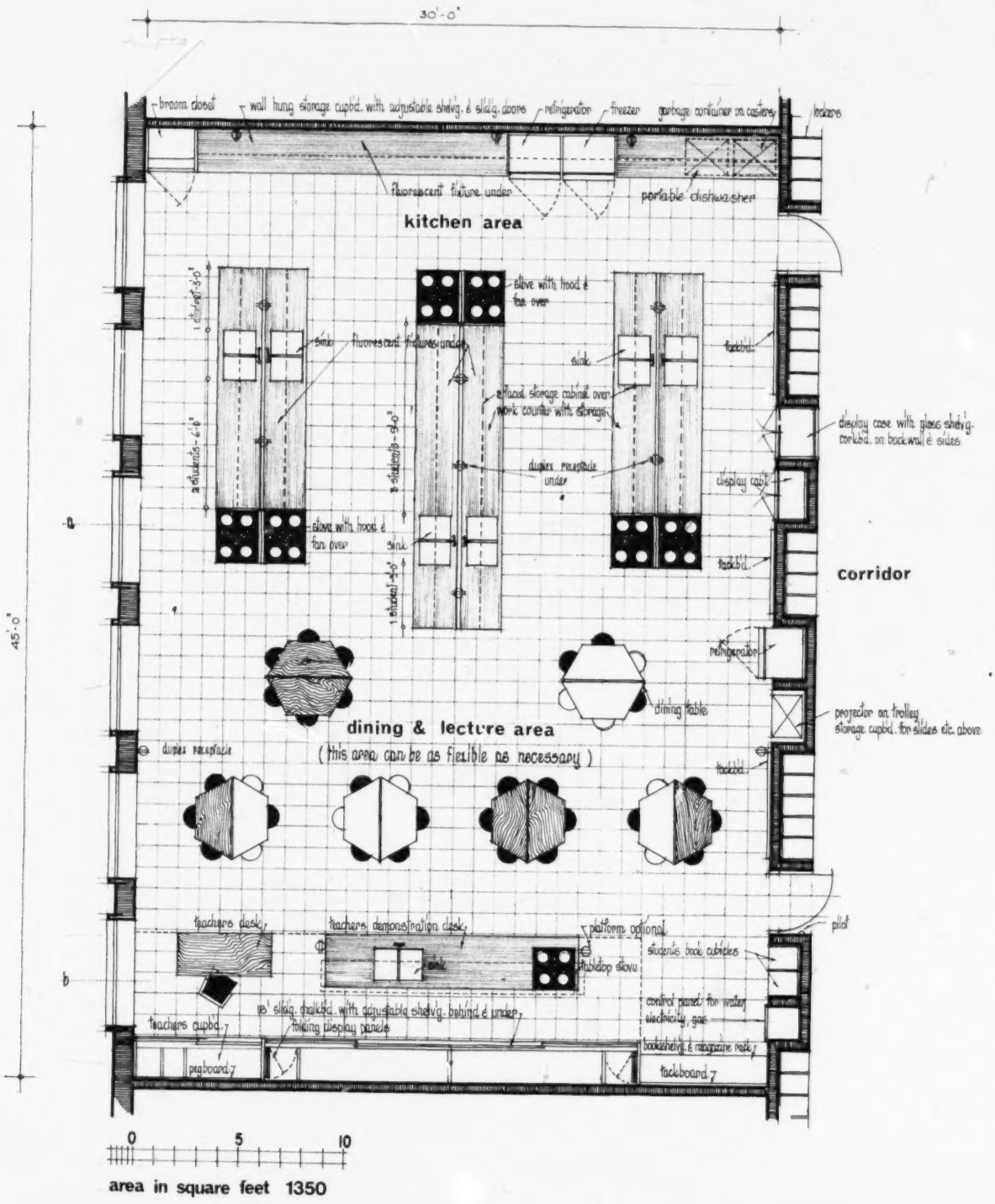
part elevation **A**





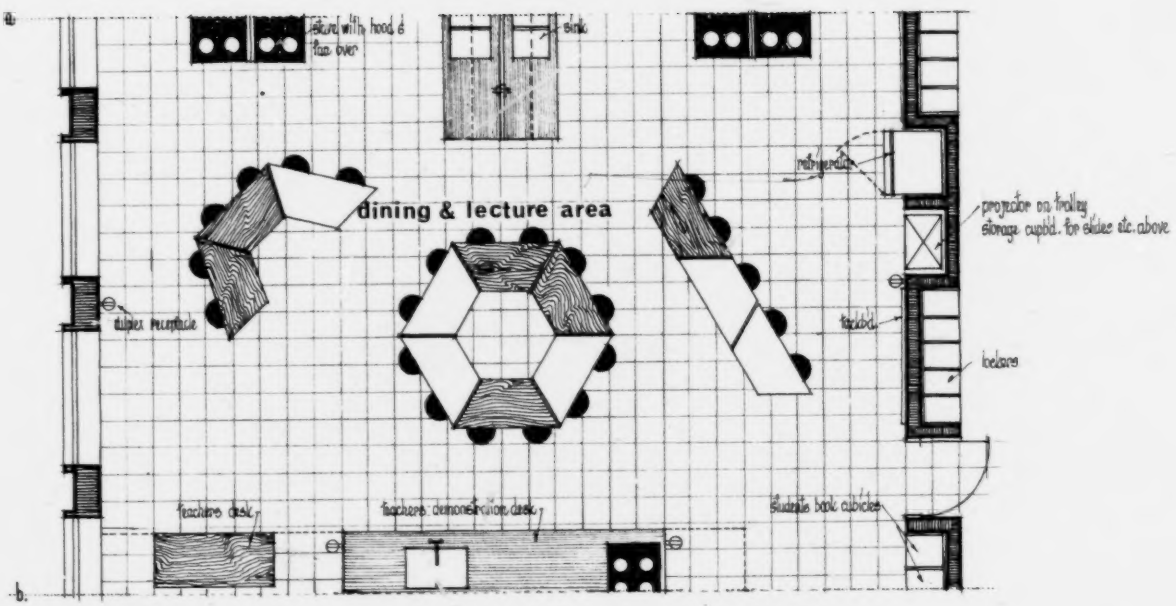
demonstration desk

Foods and Nutrition – floor plan



area in square feet 1350

Foods and Nutrition–part floor plan alternative



alternative

The textiles and clothing room will have facilities for instruction in textiles, clothing design and construction, consumer education, laundry science, housing and interior design.

Clothing Construction Area

To make full use of instruction periods, one sewing machine for each pupil in the class is required in the textiles and clothing room. For a one-room department, one machine for every two pupils, (10 machines), will suffice. A work table with two recessed machine heads allows the use of the table top for other purposes, and forms the basis of the layouts illustrated in the drawings. However, cabinet type machines and separate work tables may be used if preferred. Ten tables are needed for a textiles and clothing room, and five for a one-room department. Each should be at least 40 in. wide. Extra work tables may be provided by attaching 30 in. wide drop-leaf tables to unused wall space.

Sufficient chairs are required for the class. They must be a convenient height for pupils to sit comfortably at work tables or sewing machines. Chairs with shelves underneath to store sewing boxes or tote trays during class periods are recommended. Stacking chairs are not suitable. Sturdy ironing boards are required near the sewing area. Each board must have an electrical outlet and storage cupboard close by. It is important that each electrical outlet be equipped with a safety cut-out switch.

Instruction Area

Work tables in the instruction area can be used as desks. The demonstration unit should incorporate a double, stainless steel sink, cupboards (including one for chart storage), a bank of drawers, two 2-drawer filing cabinets and a sewing machine. A double electrical outlet is necessary at each end of the unit. In secondary schools where experiments with textiles are conducted, a gas outlet for a Bunsen burner will also be needed.

A built-in mirror is an important part of the textiles and clothing room demonstration unit. Details are shown in the drawings.

Laundry Area

The teaching of laundry science involves more than the mechanics of how to use equipment. Laundry science is closely related to textiles, and so the logical place to teach it is in the textiles room. A laundry area is best placed along one of the walls of the textiles room, and should not be separated from it by a partition. Equipment should include an automatic washer and dryer, a storage cupboard for supplies and a work counter with a double stainless steel sink. The dryer must be vented.

Fitting Room

A separate fitting room is unnecessary and also undesirable since it uses up valuable floor space and creates difficulties in supervision. A curtained cubicle, about 6 feet square in a corner of the room is adequate. It should have a three-view mirror and special lighting.

Storage Space

Access to all storage space should be unobstructed and in free-flowing traffic lanes. Easy movement should be possible from the entrance of the room to book cubicles, tote box cupboards, wardrobe cupboards and to seats. The layout of the room should allow unhindered access to sewing machines, fitting room and ironing boards while pupils are at work. Storage cupboards should not be in a separate room.

Cupboards – All cupboards should be fitted with the same locks and keys. Shelves should be adjustable in height.

Tote tray or box cupboard – This cupboard should be large enough for boxes or tote trays in which individual sewing supplies may be kept. The outer dimensions of each box should not be less than 11½ in. wide, 4½ in. high and 14 in. deep. There should be a name card on

the face of each box. The cupboard should not be more than 6 ft. high, and could have a shelf for supplies and equipment above.

Cupboards for hanging garments – At least 12 linear feet of cupboard space is needed for hanging garments. There should be a rod, at a height of 5 ft., extending the full length of the unit, and a shelf above. In addition, one section of the cupboard should be fitted with a removable rod at a height of 3 ft.

Laundry supply cupboard – For storing supplies in the laundry area, a unit similar to the ones in the kitchen area is suitable. It should have a work surface with a double, stainless steel sink, a bank of drawers and cupboards overhead and under the counter, as shown in the accompanying drawings. A deep laundry tub is not necessary.

Ironing board storage – A cupboard, divided vertically into four sections for storing ironing boards, should be placed close to where the boards are to be used. The cupboard shelves are best lined with a heat resisting material, to store irons and pressing equipment.

Storage of audio-visual aids – An additional cupboard unit will be needed for a projector, films, filmstrips and other audio-visual material. The shelving should be adjustable.

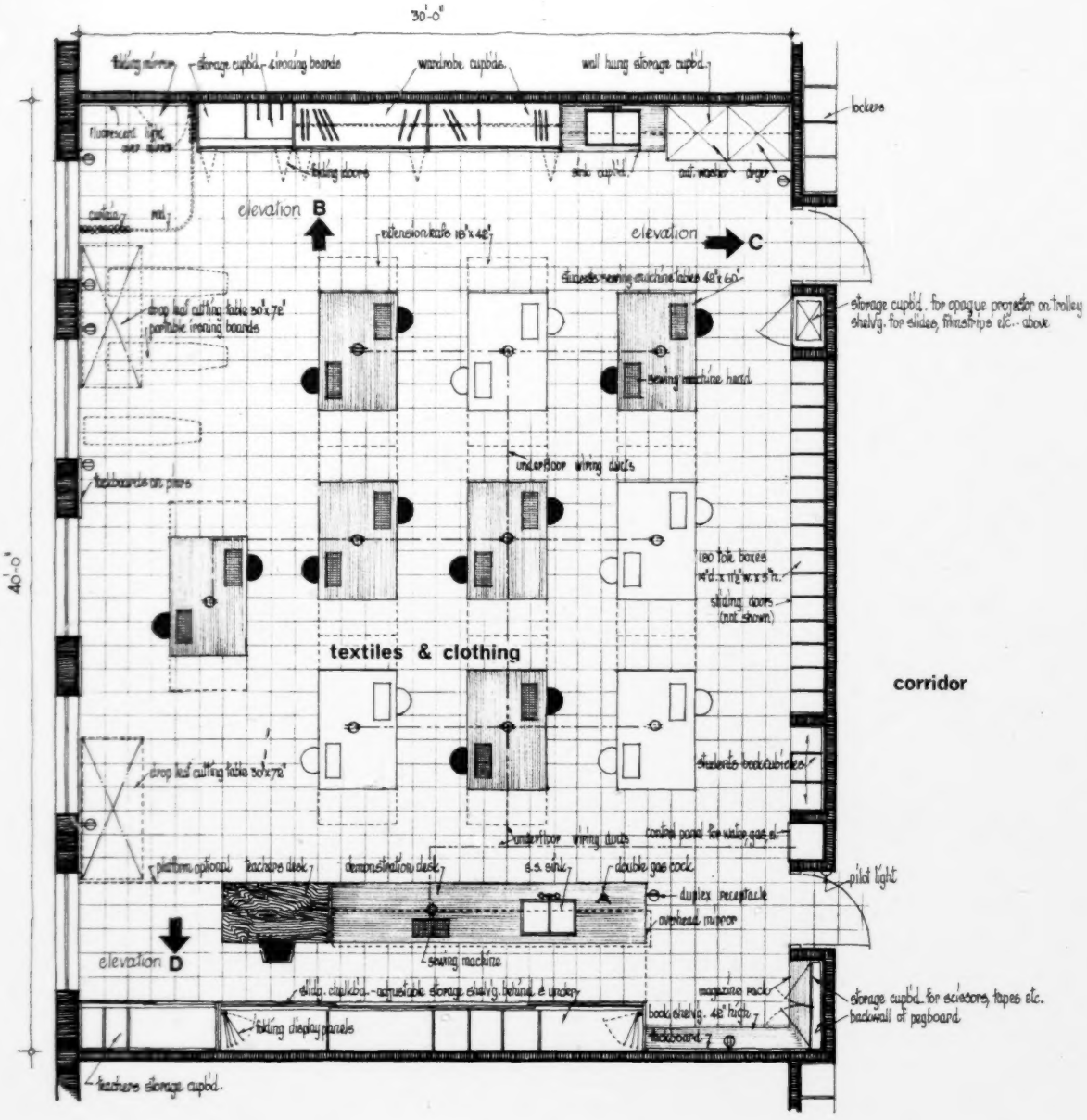
Teacher's cupboard – The teacher's cupboard is for sewing supplies and should be placed at the front of the room. If the inside of the doors is lined with pegboard, small items such as scissors can be hung.

Shelves – A magazine rack is necessary for magazines and patterns. It should be large enough to hold a book measuring 12 in. by 15 in. Ample shelves for books will also be needed. All shelves should be adjustable in height.

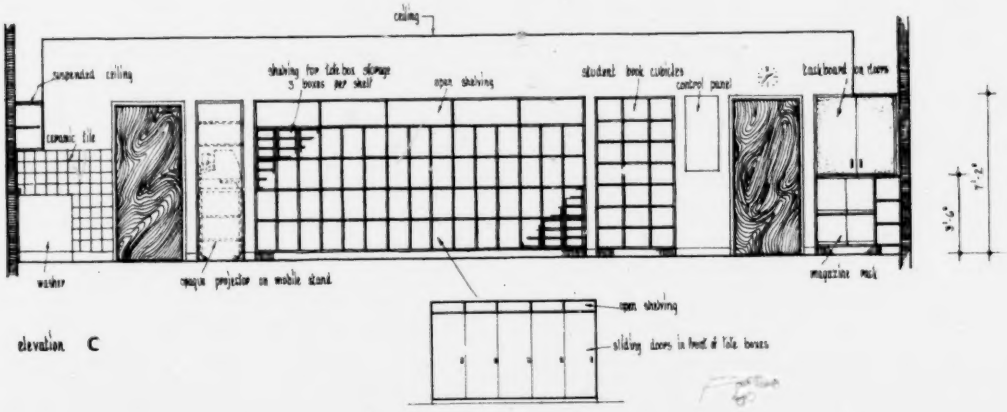
Book cubicles – A minimum of 20 cubicles for pupils' books and equipment, each measuring not less than 14 in. wide, 5 in. high and 12 in. deep, should be placed near the entrance to the room.

Space behind and underneath the chalkboard may be used for additional storage.

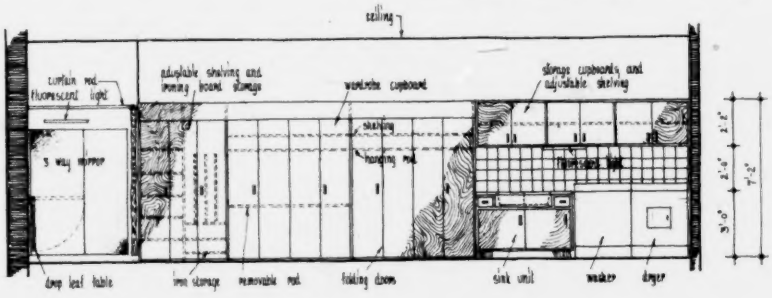
Textiles and Clothing - floor plan



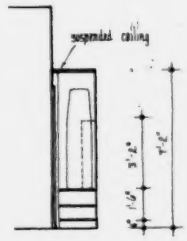
area in square feet 1250



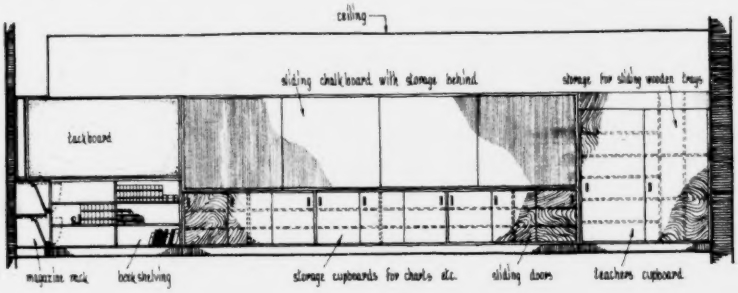
elevation C



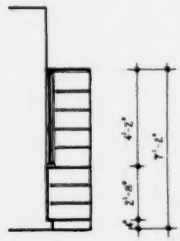
elevation B



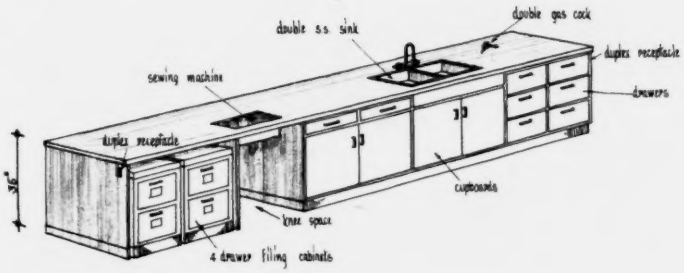
section



elevation D



section



demonstration desk

Walls – Conventional materials are suitable. In the one-room department and in the foods and nutrition room, consideration should be given to the use of a hard-wearing paint, for easy maintenance. Bright, clean colours will greatly enhance the appearance of all areas and at the same time make the students aware of the importance of colour in daily life.

Ceilings – Plaster ceilings are not suitable. It is recommended that a type of lay-in ceiling panel be used for acoustical reasons and for easy access to mechanical and electrical services, which, in all probability, will be housed in the space above the ceiling. Where the transmission of sound between one room and the next should be reduced to a minimum, partitions should extend above suspended ceilings to the underside of the floor slab or roof construction above.

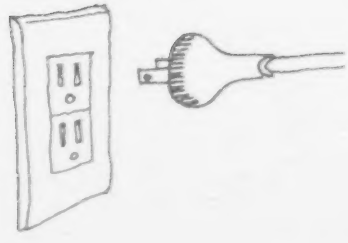
Floors – Vinyl asbestos tile is suitable. The colour should be chosen with the other room colours in mind.

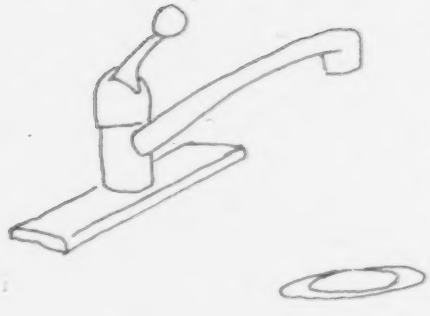
Counter tops – Plastic laminate material is suitable.

Textiles and clothing room – Particular attention should be given to the positioning of electrical outlets in the textiles and clothing room or in the textiles and clothing area of a one-room department. All outlets should be carefully related to equipment such as sewing machines and ironing boards, and should be placed in such a way that electrical cords do not cross traffic lanes. The installation of under-floor wiring ducts, although perhaps expensive, will allow the layout of equipment to be as flexible as possible, in addition to its many other advantages.

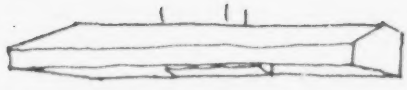
Hot and cold water supplies and adequate drainage are required for the sinks. Where textile experiments are to be conducted, a gas service for a Bunsen burner should be installed.

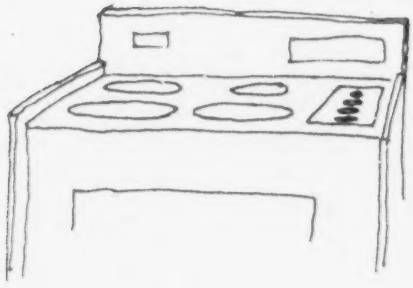
Foods and nutrition areas – If the cooking stoves are electric, a heavy duty service will have to be installed. If the stoves use gas, suitable gas service can be piped in from the mechanical room. 110 volt electrical outlets are necessary for the refrigerator, freezers and dishwasher, as are other outlets for general use at the kitchen units and as required elsewhere in the room. Hot and cold water supplies and drainage must be provided.





In both the foods and nutrition room and the one-room department, ventilation hoods over all cooking stoves, except the one at the demonstration unit, are recommended. It is also recommended that these rooms have a manually controlled exhaust fan, which can be operated by the teacher, to expel cooking odours.





1. Insufficient room area, which prevents good arrangement of equipment, unobstructed traffic lanes and easy access to equipment.

2. Classroom space waste because of:
a) a separate fitting room;
b) a living room area which will seldom be used.

3. Inadequate facilities for:
a) food preparation by the pupils;
b) teacher demonstrations of food preparation;
c) seating of the pupils during group lessons.

4. Insufficient and inconveniently located:
a) cupboards;
b) electrical outlets;
c) chalkboard.

5. High partitions which obstruct the view of some parts of the room.